

116th MEETING OF THE CANADIAN ENGINEERING QUALIFICATIONS BOARD
SUNDAY, SEPTEMBER 19, 2021
11:00 a.m. – 6:00 p.m. EDT

Held virtually

AGENDA

	Agenda item	Presenter
1	Opening of the meeting	Frank George
1.1	Call to order and introduction of attendees	Frank George
1.2	Approval of the agenda <i>Motion: That the agenda for the 116th meeting of the Qualifications Board be approved as distributed.</i>	Frank George
1.3	Declaration of conflict of interest (attachment 1.3)	Frank George
2	Approval of minutes of the previous meeting (attachment 2) <i>Motion: That the minutes from the 115th meeting of the Qualifications Board held on July 24th, be approved as distributed.</i>	Frank George
3	Review of action items from last meeting	Ryan Melsom
4	Diversity moment	Mahmoud Mahmoud
5	Committee and task force reports	Frank George
5.1	Practice Committee	Sam Inchasi
5.2	Syllabus Committee (attachments 5.2.1a, 5.2.1b, 5.2.2a and 5.2.2b)	Amy Hsiao
5.2.1	<i>Motion: That the revised Materials engineering syllabus (formerly Metallurgical engineering syllabus) be approved for regulator consultation.</i>	Amy Hsiao

5.2.2	<i>Motion: That the new Aerospace/Aeronautical engineering syllabus be approved for regulator consultation.</i>	Amy Hsiao
5.3	Task Force on Alternative Methods of Academic Assessment for Non-CEAB Applicants (attachments 5.3.1a and 5.3.1b)	Amy Hsiao
5.3.1	<i>Motion: That the draft General direction for a Feasibility study on alternative methods of academic assessment for non-CEAB applicants be approved for regulator consultation.</i>	Amy Hsiao
5.4	Task Force on Software Engineering	Ian Sloman
5.5	Task Force on Workplace Gender Equity (attachments 5.5.1a and 5.5.1b)	Margaret Anne Hodges
5.5.1	<i>Motion: That the revised General direction on workplace gender equity be approved and distributed on the members-only website.</i>	Margaret Anne Hodges
BREAK (2:30 PM – 3:00 PM)		
6	Other Qualifications Board business	Frank George
6.1	Executive Committee Terms of reference update (attachments 6.1a and 6.1b)	Frank George
6.2	Establishing norms for CEQB	Frank George
6.3	Report on RFP process (attachment 6.3)	Ryan Melsom
7	Election for 2022-23 Vice-Chair position (attachment 7)	Chris Zinck
8	National groups	Frank George
8.1	National Admissions Officials Group update	Sharon Sankar
8.2	National Discipline & Enforcement Officials Group update	Erum Afsar
8.3	National Practice Officials Group update	Bill Hunt
8.4	Comments from the regulators	Frank George
9	Information and discussion items from other Engineers Canada groups	Frank George
9.1	Report from the Accreditation Board (attachment 9.1)	Stephanie Price
9.2	Report on Engineers Canada Board activities and decisions	Chris Zinck Sudhir Jha
10	Items added to the agenda	Frank George

10.1	Adding objectives and intent to CEQB work items	Roydon Fraser
10.2	CEQB and environment, sustainability, and climate change	Mahmoud Mahmoud
11	<p>Future meetings</p> <p><i>CEQB January meeting: January 29, 2022 (Pending Board approval and COVID-19 situation, an in-person meeting and workshop might be held in Ottawa)</i></p> <p><i>CEQB Spring meeting: April 9-10, 2022 (Ottawa)</i></p> <p><i>CEQB Teleconference call: July 2022 (Date to be determined by Doodle poll)</i></p> <p><i>CEQB Fall meeting: September 19-20, 2022 (Vancouver)</i></p>	Frank George
12	Review of action items of 116th Qualifications Board meeting	Ryan Melsom
13	CEQB Debrief on national gathering (workshop) – (1hr in-camera)	Danilo Caron Tonii Lerat
14	Conclusion	Frank George

MINUTES OF THE 116TH MEETING
1. Opening of the meeting

The Chair welcomed everyone to the meeting.

1.1. Call to order and introduction of attendees

Canadian Engineering Qualifications Board Members	Frank George, P.Eng., MBA, FEC, FGC (Hon.)	Chair
	Margaret Anne Hodges, FEC, FGC (Hon.), P.Eng., PMP	Vice-Chair
	Mahmoud Mahmoud, PhD, FEC, P.Eng.	Past Chair
	Anil Gupta, P.Eng., FEC, FGC (Hon.)	Alberta, Northwest Territories and Nunavut Representative
	Frank Collins, FEC, P.Eng.	Atlantic Provinces Representative
	Amy Hsiao, PhD, MBA, P.Eng.	Atlantic Provinces Representative
	Karen Savage, FEC, P.Eng.	British Columbia, Yukon Representative
	Marcie Cochrane, P.Eng., MBA	Member-at-Large Representative
	Qing Zhao, PhD, P.Eng.	Member-at-Large Representative
	Kamran Behdinan, PhD, P.Eng., FAAAS, FASME, FCAE, FEIC	Member-at-Large Representative
	Samer Inchasi, P.Eng., PMP	Member-at-Large Representative
	Roydon Fraser, PhD, FEC, P.Eng.	Ontario Representative
	Nadia Lehoux, ing., PhD	Québec Representative
	Ian Sloman, MEng, P.Eng.	Saskatchewan, Manitoba Representative
Engineers Canada Board Appointee	Chris Zinck, FEC, P.Eng.	
Engineers Canada Board	Danny Chui, FEC, P.Eng.,	
National Admissions Officials Group representative	Sharon Sankar, P.Eng., FEC	Engineers Geoscientists Manitoba
National Practice Officials Group representative	Bill Hunt, P.Eng., FEC	PEGNL
National Discipline and Enforcement Officials Group	Erum Afsar, P.Eng.	APEGA
Engineers Canada Staff	Stephanie Price, P.Eng., CAE	Executive Vice President, Regulatory Affairs
	Ryan Melsom, PhD	Manager, Qualifications and CEQB Secretary
	Megan Falle	Manager, Regulatory Liaison
	Isabelle Flamand	Coordinator, Qualifications

Observers	Kate Sisk, MA, FEC (Hon.), FGC (Hon)	Engineers Geoscientists NB
	Kate MacLachlan, PhD, P.Geo., FEC (Hon.), FGC	APEGS
	Jason Ong	Engineers and Geoscientists BC

Regrets

Engineers Canada Board Appointee	Sudhir Jha, M.Eng., FEC, P.Eng.
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1.2 Approval of the agenda

A member requested that an item be added to discuss CEQB resources.

Motion: That the agenda of the 116th Meeting of the Qualifications Board be approved with a friendly amendment was moved by Ian Sloman, and seconded by Kamran Behdinan. None were opposed. The agenda was approved.

1.3 Conflict of interest

CEQB members have an ongoing obligation to conduct themselves in an ethical, professional, and lawful manner, and to identify and disclose actual, reasonably perceived, and potential conflicts of interest. These obligations are set out in case law and are also codified in statute, under the *Canada Not-for-profit Corporations Act* (“CNCA”). Members that cannot act in the best interests of Engineers Canada or are conflicted should recuse themselves from the relevant part of the meeting, and they shall not vote on the decision at hand. Members must support the legitimacy and authority of CEQB decisions, regardless of their personal position on the issue, and shall not publicly discuss the varying opinions of individual members.

2. Minutes

Motion: That the minutes from the 115th meeting of the Qualifications Board held on July 24th, 2021 be approved as distributed was moved by Mahmoud Mahmoud, and seconded by Sam Inchasi. None were opposed. The minutes were approved.

3. Review of action items from last meeting

	Action item	Assigned to	Status
114.1	Distributing the revised version of the Executive Committee ToR to CEQB members.	Secretariat	Completed
115.1	Send the priorities that will comprise the CEQB 2022 Workplan to the Engineers Canada Board for review and approval.	Secretariat	Completed

4. Diversity moment

Mahmoud Mahmoud provided a diversity moment to the CEQB.

5. Committee and task force reports

5.1 Practice Committee

Sam Inchasi, chair of the Practice Committee, presented. Since April, three regional gatherings were held in August 2021 to collect data for the Guideline for engineers and engineering firms on Indigenous consultation and engagement. A national gathering was held on September 18, and another session will be held with the Practice Committee, Indigenous Advisory Committee, and other guests on October 2. Gathering discussions and outcomes will help inform the general direction document which is scheduled to be drafted by November 2021.

5.2 Syllabus Committee

Amy Hsiao, chair of the Syllabus Committee, presented. Since April, an expert panel has reviewed the Materials engineering (previously Metallurgical) which is presented today for regulator consultation approval. Another expert panel has finalized the new Aerospace/aeronautical engineering syllabus which is also presented today for regulator consultation approval. An expert panel will be formed in Fall 2021 for the review of the 2004 Agricultural/biosystems/bioresource/food engineering syllabus.

5.2.1 Materials engineering syllabus (previously Metallurgical engineering syllabus)

There was discussion around the number of required exams within both the Materials engineering and Aerospace/Aeronautical engineering syllabi. There was concern that regulators may not use the syllabi as presented due to the number of required exams being too high compared to other syllabi (fairness issue). It was mentioned that the review was evidence based and that the numbers reflect the interdisciplinary nature of the CEAB accredited programs in Canada within those disciplines. A note discussing the number of exams and precedents around this will be included with the syllabi when they are sent for regulator consultation (**action item 116.1**).

It was noted that the title was changed to Materials engineering (previously Metallurgical) since metallurgy is now only a part of CEAB accredited programs in that discipline, and that Materials is more encompassing and a better reflection of currently accredited programs.

Motion: That the revised Materials engineering syllabus (formerly Metallurgical engineering syllabus) be approved for regulator consultation was moved by Amy Hsiao, and seconded by Kamran Behdinin. Roydon Fraser was opposed. Mahmoud Mahmoud and Frank Collins abstained. The motion carried.

5.2.2 Aerospace/Aeronautical engineering syllabus

Motion: That the new Aerospace/Aeronautical engineering syllabus be approved for regulator consultation was moved by Amy Hsiao, and seconded by Kamran Behdinan. Roydon Fraser was opposed. Mahmoud Mahmoud and Frank Collins abstained. The motion carried.

5.3 Task Force on Alternative Methods of Academic Assessment for non-CEAB Applicants

5.3.1 General direction for a Feasibility study on alternative methods of academic assessment for non-CEAB applicants

Amy Hsiao, chair of the Task Force on Alternative Methods of Academic Assessment for non-CEAB Applicants, presented. Since April, three workshops were held in June. Based on their environmental scan and workshop discussions, the consultants, with input from the task force, developed the general direction document, which is presented today for regulator consultation approval. The general direction will be revised following consultation feedback.

CEQB members were reminded that the final product will be a report presenting alternative methods to academic assessment, and that there won't be a recommendation or set guidelines. There were concerns about scope creep in the document (i.e., discussions on work experience, emerging disciplines) which should be focused on academic assessment.

Motion: That the draft General direction for a Feasibility study on alternative methods of academic assessment for non-CEAB applicants be approved for regulator consultation was moved by Amy Hsiao, and seconded by Frank Collins. None were opposed. The motion carried.

5.4 Task Force on Software Engineering

Ian Sloman, chair of the Task Force on Software Engineering, presented. Since April, the task force met to review and incorporate the 2020 feedback, and several additional changes are being incorporated. The Task Force on Software Engineering subsequently developed and finalized a survey to support the development of appendices. An RFP has been launched to hire a consultant to interview area experts and develop appendices to ensure that they are developed in a professional and consistent manner. The appendices will contain descriptions of practice areas in the field of software engineering, and will help regulators define what is software engineering work, and when a software engineer is required to complete the work.

5.5 Task Force on Workplace Gender Equity (attachments 5.5.1a and 5.5.1b)

5.5.1 General direction of the Guideline for engineers and engineering firms on workplace gender equity

Margaret Anne Hodges, chair of the Task Force on Workplace Gender Equity, presented. Since April, the revised general direction has been finalized, and is ready for final approval today. The drafting of

guideline may begin as early as late September.

A member requested that the title of the document be changed to “Guideline for engineers and engineering firms on workplace equity for women” (**action item 116.2**). CEQB members were all in favour of this amendment. As a result, the motion was also modified.

Motion: That the revised General direction for a Guideline for engineers and engineering firms on workplace equity for women be approved and distributed on the members-only website was moved by Margaret Anne Hodges, and seconded by Karen Savage. None were opposed. The motion carried.

6. Other Qualifications Board business

6.1 Executive Committee Terms of reference update

At the CEQB meeting in April, the Executive Committee Terms of reference were shared and CEQB members were invited to send any additional comments to Ryan Melsom. The Terms of reference presented today were reviewed and updated based on feedback.

Discussion ensued on Executive Committee and its Terms of reference, highlighting the importance of inclusive practices. A member requested that demonstration of authentic leadership be incorporated in the Terms of reference. It was also clarified there is a list of items that are excluded of the Executive’s authority was added for transparency. An item will be added that reflecting today’s discussions on inclusive and authentic leadership practices. Once the revisions have been made, the updated Executive Committee Terms of reference will be sent to the Engineers Canada Board for approval (**action item 116.3**). Going forward, the Executive Committee Terms of reference will be reviewed by the CEQB every two years (**action item 116.4**).

6.2 Establishing norms for CEQB

Norms are a way of establishing consensus on appropriate group behaviour. It can be through concrete expression of values (e.g., if you want to encourage the value of “respect” a norm could be “letting each person speak on a topic”). They emphasize specific processes and/or interpersonal behaviours (e.g., “refrain from repeating the same point more than once”). As there was enough interest for further discussion on establishing norms for the CEQB, it will be added to the agenda of a CEQB meeting in 2022 (**action item 116.5**).

6.3 Report on RFP process

To support CEQB work plan items requiring specialized expertise unavailable through Engineers Canada staff, the CEQB Secretariat issues requests for proposals (RFPs) at the direction of CEQB task forces and committees. At the April 2021 CEQB meeting, a member requested clarification regarding on how this process is conducted, citing concerns about bias in the RFP development and selection process.

The CEQB guides the development of RFPs by advising on strategic considerations, via its input through work item proposals, approval of the CEQB work plans and, when needed, approval of Terms of reference documents. RFPs are only intended to solicit expertise within the scope and considerations laid out by the CEQB. While the CEQB directs the work needed, the RFP development process must account for a combination of Engineers Canada’s strategic context, staff resources, budgetary considerations, workload considerations, and legal considerations. Due to the primarily operational nature of the work involved with RFP development and process management, then, as well as the need for timely delivery to meet project milestones, the work is assigned to the CEQB Secretary.

While the CEQB Secretariat seeks transparency of processes to the greatest possible extent, vendor proposals contain substantial confidential information that must be protected to minimize risk of legal and/or reputational damage to Engineers Canada. Because staff are held accountable to a different standard than volunteers (i.e., their obligations are legally binding), employing staff to develop and execute RFPs serves a means for mitigating these risks. The CEQB, via its committees/task forces and via its approval of both general directions and completed CEQB documents, maintains control over the totality of the CEQB product development process. No documents can be published under the CEQB’s name without express approval of its members.

7. Election for 2022-23 Vice-Chair position

In April 2019, the Engineers Canada Board adopted the new CEQB Policy, which establishes a new nominations process. A call for nominations was issued on April 15 and closed on June 15. Only one candidate put his name forward for the 2022 vice chair position. CEQB members were asked to vote “yea” or “nay” via an online voting tool (Poll Everywhere). Frank Collins was voted in and his term for vice chair will start on July 1, 2022 (subject to Engineers Canada Board approval in December 2021).

8. National groups

8.1 National Admissions Officials Group update

Sharon Sankar, chair of the National Admissions Officials Group (NAOG), presented. The NAOG met in April 2021 to discuss items such as challenges and new happenings (roundtable updates), OIQ’s method of assessing non-CEAB applicants’ academics and experience, time-based requirements for licensure and potential changes due to widespread CBA rollout. Recent admissions-related initiatives and project updates include securing a vendor and starting work involved on National Membership Database (NMDB) overhaul, and the Competency Based Assessment (CBA) system nearing completion with most participating jurisdictions live or nearly live. The NAOG’s next annual meeting will be held virtually in September 2021. Discussions will include updates on NMDB, CBA, International Mobility, CEQB, CEAB, National Reference Points EGBC’s Technical Examination Pilot (online examinations).

8.2 National Discipline & Enforcement Officials Group update

Erum Afsar, chair of the National Discipline and Enforcement Officials Group (NDEOG), presented. The NDEOG met virtually in June 2021 for roundtable updates and to discuss items such as current case volumes and activities, and improper use of “engineering” title from companies / government / individuals in job postings and positions. The NDEOG provided updates to 2021 Annual Discipline and Enforcement Survey which compiles discipline and enforcement statistics from all regulators on items such as number of complaints, completed investigations, active cases and more. The NDEOG met to hear about Engineers Canada’s 2021 Intellectual Property Report, and provided input to a new proposed informational pamphlet intended for circulation to companies/the public on title “engineer”, who can use it, and why it’s protected (to be finalized shortly). Their next meeting will be held virtually in November 2021.

8.3 National Practice Officials Group update

Bill Hunt, chair of the National Practice Officials Group (NPOG), presented. The NPOG met virtually in May 2021 for roundtable updates and to discuss items such as Engineers Yukon’s new offering of continuing professional development (CPD) credits for caregiving services. The NPOG provided 2021 updates to NPOG tables and documents on classes of licensure, business entity regulation, and CPD programs. They also provided input to regulatory research papers on entity regulation and non-practicing status. The NPOG met virtually again on September 16, 2021 (more details to come).

8.4 Comments from the regulators

The regulators thanked the CEQB for inviting them to participate in these meetings, and the work they are helping move forward

9. Information and discussion items from other Engineers Canada groups

9.1 Report from the Accreditation Board (attachment 9.1)

In 2020, the CEAB conducted four virtual visits for new programs at four institutions. In 2021, there were 10 decisions (including that of the four new programs). For the 2021/2022 cycle, there are 79 programs at 17 institutions for which the visits will all be conducted virtually. For the 2022/2023 cycle, there are 70 programs at 23 institutions which will potentially be conducted in-person. Uncertainty around pandemic-related restrictions for on-campus activities, the ability to travel, and the ability to gather prompted the CEAB to make this decision in February 2021, providing the benefit of certainty for all (including HEIs, volunteers, and Engineers Canada staff). The Guide to Virtual Evaluation of an Engineering Program provides a framework for virtual visits for both HEIs and visiting teams. A virtual visit training plan for visiting team chairs, HEIs, and visiting teams was executed over the summer.

A revised definition of engineering design for accreditation applicable to Graduate Attribute #4 (Design) and criterion 3.4.4.5 (minimum of 225 engineering design Accreditation Units) has been approved by the CEAB and will be considered by the Engineers Canada Board on October 1. A change to the Interpretive statement on licensure providing more flexibility in the distribution of curriculum content (Engineering

Science, Engineering Design, Natural Science, Mathematics, and Complementary Studies) was also approved in June and applicable to the 2022/2023 visit cycle. The report from the engineering design consultation will be shared with CEQB members.

The pandemic has necessitated the CEAB to look at the utility of the Accreditation Unit (AU) as a curriculum content measurement. The AU relies on 'contact time' between the student and faculty. The pandemic has accelerated the shifting of educational delivery methods and as a result, the concept of 'contact time' is difficult to reconcile and the AU may not be the best input measurement tool. The Policies and Procedures Committee is examining the issue and the September 2021 CEAB workshop is focused on this topic.

9.2 Report on Engineers Canada Board activities and decisions

Chris Zinck, Engineers Canada Board director, provided an update on recent Board activities and decisions. At Engineers Canada 2021 Spring Meeting and Annual Meeting of Members, there was discussion surrounding national collaboration for the regulators, strengthening regulation in emerging disciplines, promotion of the engineering profession, and re-focusing on the 30 by 30 goal.

10. Items added to the agenda

10.1 Adding objectives and intent to CEQB work items

This item will be carried over to the CEQB January 2022 meeting (**action item 116.6**).

10.2 CEQB and environment, sustainability, and climate change

Mahmoud Mahmoud, chair of the Environment and Sustainability Committee, brought forward the current climate crisis, and suggested further consideration from the Engineers Canada Board regarding including environment, sustainability, and climate change work as a CEQB priority for 2022. Due to a lack of resources, this topic was not included on the CEQB 2022 Workplan.

10.3 Admission Issues Committee update

Qing Zhao, chair of the Admission Issues Committee, presented. The review of the 2013 Guideline on good character (pending the approval of the CEQB 2022 Workplan at the December Board meeting) will begin in 2022. The CEQB will hold a workshop on this topic at their January 2022 meeting as it is currently planned as an in-person meeting. A working group will be struck for the planning of the workshop. CEQB members who are interesting in joining this working group are asked to contact Ryan Melsom or Qing Zhao.

10.4 Issue on lack of resources

The CEQB discussed the issue on lack of resources, and how it negatively impacts the CEQB's ability to

complete all the work that has been requested by the regulators. Due to a lack of resources, the CEQB has had to postpone certain regulator requests in 2020 and 2021. This issue will be brought forward at the next Engineers Canada Board meeting in October (**action item 116.7**).

11. Future meetings

CEQB January meeting: January 29, 2022 (Pending Board approval and COVID-19 situation, an in-person meeting and workshop might be held in Ottawa)

CEQB Spring meeting: April 9-10, 2022 (Ottawa)

CEQB Teleconference call: July 2022 (Date to be determined by Doodle poll)

CEQB Fall meeting: September 19-20, 2022 (Vancouver)

12. Review of action items of 116th Qualifications Board meeting

	Action item	Assigned to
116.1	Include a note discussing the number of exams and precedents around this when the syllabi are distributed for regulator consultation.	Secretariat
116.2	Change the title of the Guideline on Workplace Gender Equity to the Guideline on workplace equity for women.	Secretariat
116.3	Send the CEQB Executive Committee Terms of reference to the Engineers Canada Board for approval.	Secretariat
116.4	Include the review of the CEQB Executive Terms of reference on a two-year schedule.	Secretariat
116.5	Add the norms discussion to an upcoming agenda (way to solicit participation from quieter group members).	Secretariat
116.6	Defer the discussion of objectives and intent to January meeting.	Secretariat
116.7	Bring forward the issue regarding the CEQB's lack of resources at Engineers Canada Board meeting in October.	Secretariat

13. CEQB Debrief on national gathering (workshop) – (1hr in-camera)

A debrief was provided by Urban Systems on the CEQB's national gathering (workshop) held the previous day, and CEQB members had the opportunity to reflect on the gathering and discuss further.

14. Conclusion

The meeting concluded.

Prepared by: Isabelle Flamand, Coordinator, Qualifications on behalf of:



Frank George, P.Eng., MBA, FEC, FGC (Hon.)
Chair, Canadian Engineering Qualifications
Board



Ryan Melsom, PhD
Secretary, Canadian Engineering
Qualifications Board